

An Essay
on
Yellow Fever

Respectfully submitted
to the
Hon. Medical College
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One Thousand eight hundred & fifty

For the Doctorate in Medicine
By
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Febris Flava Americana, *Typhus tropicus*,
is a fever prevailing principally in the
southern climates as an epidemic, and shows
itself in the character of a synochal fever, which
in a shorter or longer period becomes putrid; it
was first known to the Spaniards and Columbus,
as they were themselves attacked, when they
founded the city of Isabella, in St Domingo
in the year 1494. It prevailed in the West
Indies in Cuba, especially in Havannah,
also in St Domingo, Portorico, Antigua,
Guadalope, Martinique and Barbadoes,
about the time of the discovery of America,
at which time there were many epidemics
of this character; it appeared in Philadelphia
in the year 1699. New York in 1702, since
which time it has frequently visited
these and other sea port towns about the
same latitude north, in the year 1805

it went as far north as Quebec. In Europe it made its first appearance in 1721 in Lisbon, in 1730 this disease was prevailing in Cadix, 1741 in Malaga, 1800 in Cadix and Seville, 1804 on the entire south coast of Spain, and in Livorno, principally Barcelona in 1821, also south of the equator it appeared frequently; it seldom appeared in inland towns. The character of the yellow fever in the commencement is a synochal, but soon becomes putrid or paralytic; the primitive parts affected, seem to be the liver and gall bladder; modern writers think that through their examinations, that it is not the liver and gall bladder that are the affected parts. Don Furtado de Mendoza thinks the original seat of the disease is inflammation of the stomach and intestines; also Desmoulins and Firth assert, that the

stomach is the principal seat of the disease; if these assertions should be true, then it would not be considered as formerly by most writers as bilious fever. The course of this fever is generally classed in three stages, which pass suddenly from one to the other, so that they can scarcely be distinguished, at other times it does not reach the last stage. Different modifications in its course and appearance present themselves in the single epidemics, which are very seldom in all cases alike; of these single epidemic differences we cannot here give a minute detail. In the commencement of the yellow fever, the principal symptoms are pressure and tightness in the pericardium and hypochondriac regions, with disgust for food, vomiting, headache, depression of spirits, lassiness

and heaviness in the bones, after which
chilliness and coldness appears, the latter
symptoms are seldom met with in hot
climates, but generally succeeded by violent
burning heat, with frequent full or
intermittent pulse; the eyes are red, cloudy
and easily inflamed, in the face flushes
of redness, the thirst moderate; thus the
fever appears in its more violent character,
it suddenly comes on without these premo-
nitory symptoms, with violent heat which
is extraordinary great for the feelings of the
patient, very frequent and full pulse, burn-
ing thirst, great anguish, difficult breathing
bloated red face, eyes as if bloodshot,
violent headache especially in the frontal
bone, which either passes into delirium or
coma, with pain in the loins and spine,
the swelling and tightness with the feeling

of soreness and anguish in the praecordial region continues, the stomach and hypochondriac regions are very sensitive and the slightest pressure excites violent pain, the sensibility of the stomach is so great that scarcely any thing will remain with it, at times there appears real vomiting, which is excited through the slightest cause; even distant parts become affected, such as the eye, ear, &c; the color of the urine is a fiery red, or highly yellow, the bowels constipated, the tongue sometimes clean, but generally coated with a tough mucus, the abdomen generally sunken and soft, seldom bloated, the skin mostly dry, or partly covered with sweat, the countenance has the appearance of distress and trouble, the patient shows great uneasiness, groans frequently and is desponded, or else passes.

over to delirium, mostly there is sleeplessness and sometimes desire for sleep; after the disease has gone on in this way 2 or 3 days, seldom longer, there appears at first a yellow color in the eye and other places with a thin skin and lastly over the whole body; this they formerly took for the surest sign as being an affection of the bilious system, but Firth and Desmoulin contradict this opinion, founded on their experience in the yellow fever, that neither the secretion of bile is increased, nor that the bile is unnaturally spread, the last thinks that the yellow color is only a general ecchymose, and gives as a proof that it appears in the form of broad stripes along the course of the circulation, with the appearance of the yellow color the violence of the fever and the headache

are diminished, the debility and despondency increases, the great redness of the face becomes pale and sallow, the sensibility of the praecordial region, the burning of the inner parts, the vomiting of putrid mucus, or bile, then green foetid matter continues, also great constipation or discharge of chalk like substance, the urine gets thick and turbid, also dark coloured, the skin remains dry or is covered with a cold pasty like bad smelling sweat, the tongue is coated yellow, but at the same time dry and cracked; the mind of the patient remains sometimes unchanged, notwithstanding the great debility always increases, at times slight delirium takes place, with fixed ideas, with great raving or a deep dead like sopor, sometimes the paralytic fever character goes so far in this stage, that

under fainting, jerking of the tendons, picking of the bedclothes and other signs to decompose the system; sometimes under the symptoms of a kind of hydrophobia death follows; but generally a change takes place during the increasing weakness and sensibility, that on the 5th and 6th days of the disease a vomiting comes on of a black, dark brown, coffee like substance, of a bad smelling very strong odor, for whose origin they looked for in a spoiled bilious secretion, but Firth asserts that these masses do not come from the liver, but from the inner coats of the stomach; the inner walls of the cavity of the mouth bleed easily, sometimes blood passes off by stool, and the excrement is black and pitch like, the urine is dark coloured, sometimes menorrhagia takes place, the lemon yellow or blackish color of the skin becomes ecchymosed

the tongue becomes dry and brown, the pulse sinks extraordinarily and becomes intermittent; then there appears delirium and sometimes convulsions, occasionally there appears black vomiting, at times without, the appearance of extreme weakness, and a disturbance of all the functions of internal parts, after which stopping of pain and returning sensibility, and death follows. This unfortunate result of the yellow fever appears after a course of from 5 to 8 days, sometimes in 2 or 3 days, it may come in 24 hours, but it can also if in the beginning the inflammatory fits are not very violent keep on untill the 14th day, when it passes into recovery, the disease does not pass from the 2nd to the 3rd stage but returns to convalescence, it comes on after the slow disappearance of the bad symptoms, and appearance of good ones, whereto belong a full

and regular pulse, general sweat, eruption on the lips, and sometimes bleeding from the nose. Occasionally the patient is very soon relieved of the most serious symptoms and becomes a good appetite, with the satisfaction that it did a great deal to the recovery of his strength.

Aetiologie.

The yellow fever attacks persons of different habits and constitutions oftener males than females, generally grown persons, seldom children, principally it attacks persons from foreign or cold climates, those born in and accustomed to the climate are very seldom attacked; persons are seldom attacked twice. Some physicians consider this disease contagious, others do not; those who consider it contagious are Bally, Francois, Pariset, Burnett, Keraudren, Townsend, Rocknor, &c,

those who do not, are Don Hurtado de Mendoza,
Osgood, Perkins, Cooke and Cherwin.
According to Matthew, Burnett and Fulgie,
who are neither against nor in favour of
contagion, that the cause of the disease is
in general spread in the hot climates of our
country, and as the best preventative, they
recomend a regular and carefull mode of
living. The contagion shows its greatest power
when the weather is very hot, especially if
the heat is followed by sudden changes of
temperature, especially if damp weather
comes on, or rising of vapours of swampy places,
also from putrid matter on the sea coast,
from spoiled articles taken from vessels. gen
erally in the tropics, but never in those places
above the latitude of 45 or 46; it generally
prevails in the hottest seasons, and diminishes
or disappears in cold weather; according to

Caseaux, it appears in moderate climes near the end of July or the beginning of August; in other parts it appears only when the atmospheric air is equal to that of the tropics. This epidemic most frequently appears in those places which are situated on the sea shore, and spreads, but rather seldom from the coast to the neighbouring rivers and towns, persons of full habit are generally attacked, as those who lead a dissipated and immoderate life, eat much meat, drink liquor, or walk in the burning rays of the sun and afterwards expose themselves to evening dew and night air.

Termination

The disease may pass first, into convalescence on the disappearance of all bad symptoms, and by the appearance of good ones, as a general sweat, wherto sometimes bleeding

from the nose comes, principally if the changes appear early; 2nd in death either through fainting or by paralysis of the abdominal nerves, which comes sometimes as early as the second or third day, but generally to the fifth or eighth day, seldom later.

Dissections.

In dissections it was found in general that the stomach and intestines were inflamed or mortified, at times also the lungs, often between the dura mater and the skull, or between the plates of the arachnoid, effusions of blood were found to the amount of several ounces; at times effusions were found in the spinal column, in the lumbar and sacral region effusions of serous matter, the lungs and the organs of circulation were very little altered, seldom inflamed but often serous exudations; in the stomach

and intestines inflammation and mortified spots, also ulcers, in these parts blood and a brown or black coloured matter; the liver often enlarged and yellow, the gall and gall bladder dark green and brown black; the fat in the whole system, as if it were melted, the blood thin and black.

Prognosis.

The prognosis of this disease is very difficult. The yellow fever is one of the worst epidemics, and the worst signs are the discharges of blood, which appear in the last stages of this disease, the deaths according to french writers were in Barcelona about three fourths, in other places such as Tortosa about five sixths.

Therapeutics.

As we cannot here speak from experience of the treatment of this disease, but can only give the theory of the treatment, according

to the nature of the symptoms which present themselves in the yellow fever. In the beginning of the disease when there is great anguish and pain in all the limbs with chilliness and coldness of the skin, great fear and disquietude, symptoms of vomiting, pressing in the praecordial region, especially after a meal, tightness with a feeling of weight in the hypochondria, and if constipation is present, then the most suitable remedy would be *Nux Vomica*; in some cases *Chamomilla* should be preferred, oftener *China* when there are chills followed by heat, loss of spirits, hippocratic countenance black and coated tongue, disgust with a feeling of fullness, much thirst, vomiting of bile, pain on movement in the region of the liver, *China* may here generally be found most suitable if it is given in the commencement

and may be of great service and bring the disease to a crisis; it shows its particular action where the disease is of an epidemic character, besides these there are other remedies, namely, Aconite, Bryonia, Specuacantha, Mercurius Corrosivus and Solubilis, Veratrum, Pulsatilla, Arsenicum and others, if the symptoms are of a nervous or typhoid character, then the treatment would be as nervous or typhoid fever, but only according to individual cases, after which should there be black vomiting, with diarrhoea, the best remedies then would be Veratrum and Arsenicum, especially the last named remedy, as it would cover the principal symptoms in the last stage of this disease. The experience of Homoeopathy has been very limited in this formidable disease and it is impossible for us to

say how successful it will prove, but thanks to that valuable law of cure *Similia Similibus Curantur*, it will doubtless prove satisfactory in the hands of an attentive and well informed practitioner in this as well as in any other disease. That frightful disease Cholera the only thought of which is enough to freeze the blood in the veins of every in an epidemic time has felt the power of this law in saving the lives of thousands and conferred the greatest blessing on mankind, let us give the new school a fair trial and it will doubtless satisfy our most sanguine expectations in this respect, and prove itself far above its foster sister. The subject of my thesis is not a very common one and seldom written about, the authorities are very limited in english, the best ones,

I found are in german works, which I consulted in writing this treatise. In handing this in, allow me to request your forbearance, as my own knowledge is not extensive in the above fever, and should I have made any mistake either in giving the symptoms or treatment you will please excuse me, assuring you that every thing in my power has been done to give you the fullest satisfaction.

Respectfully Yours
Jacob F. Sheek.

Effect of Opium as a Drug upon the Human
System.

Submitted to the Faculty
of the
Philadelphia College
of
Physicians.

Class of 1860.

Presented to the
Faculty of the

Therapeutics
of
Philadelphia.